Conclusion: There were a variety of highly individualised specimens seen. It was not possible to conclude the definite reasons for failure but this study has certainly highlighted crucial points for future studies to address.

1125: FUNCTIONAL OUTCOMES FOLLOWING THE USE OF AN INEXPENSIVE MINI-EXTERNAL FIXATOR DEVICE FOR PHALANGEAL FRACTURES

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Introduction: Complex phalangeal fractures are often stabilised using commercial external fixators, which are costly and require familiarity. Here we describe our positive experience using a simple fixator constructed using readily available materials.
Methods: Patients who had phalangeal external fixation by a single operator, over a five year period were identified from theatre logbooks. Data was obtained retrospectively on aetiology, fracture configuration, operative details, complications and post-operative function using Total Active Movement (TAM) scores.
Results: Outcome measurements were retrieved in 26 of 38 patients identified. Injuries were sustained through altercation (n=6), crush (n=7) or fall onto hand (n=17). The majority affected the little finger (n=15) and the proximal phalanx (n=19) was most commonly fractured. One fracture was open. All achieved bone union. No secondary procedures were required. Complications occurred in 9: unexpected stiffness (n = 1), unexpected swelling (n = 4) and pin-site infection (n=4). At four months the functional outcome was good (%TAM>80%) or excellent (%TAM = 85%) in all patients with a mean TAM of 230o.
Conclusion: This external fixator provides a reliable and cost-effective method of complex fracture fixation. The post-operative complications are acceptable and functional outcomes highly favourable when compared to other methods of phalangeal fracture fixation.

1138: TARGETED FOOT AND ANKLE INJECTION WITH ULTRASOUND GUIDANCE IN THE RADIOLOGY DEPARTMENT REDUCES THE NUMBER OF PATIENTS REQUIRING INJECTION IN THEATRE

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Introduction: Foot and ankle pain is common, with causes including osteoarthritis, tendonitis and fasciitis. Targeted injection with local anaesthetic and corticosteroid can be used for diagnostic and therapeutic purposes. This can be performed in theatre, or clinic with ultrasound guidance.
Methods: Foot and ankle injections performed in theatre by a single Orthopaedic consultant from January-2007 to December-2010 were reviewed by log-book entries. Those referred for ultrasound-guided injection during this period were also recorded. These were performed by a Musculoskeletal consultant radiologist. Costs for these were calculated using clinical coding data.
Results: Injections performed in theatre has reduced markedly, from 134-[2007], 118-[2008], 43-[2009] and 28-[2010]. Concurrently, injections performed in the radiology department had risen from 10-[2008], 41-[2009], and 100-[2010] ($p<0.001$)
Cases performed in theatre cost the trust £1229, though receiving just £630 from the PCT for each; a loss of £599. Cases performed in radiology cost £206, saving £393 per patient, with projected savings of £58,164 in 2011.
Discussion: Increasing numbers of injections in the radiology department, and a subsequent reduction in theatre cases has been demonstrated. Close co-operation between Orthopaedic Foot and Ankle surgeons and Musculoskeletal radiologists produces massive savings in theatre costs, time, and a more efficient patient pathway.

1202: USING TOURNIQUET AND SURGICAL DRAIN IN TOTAL KNEE ARTHROPLASTY: DOES IT MAKE A DIFFERENCE?

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Aim of Study: To look for any difference in perioperative recovery and complications following use of pneumatic tourniquet and surgical drains in knee replacement surgery.
Methodology: We retrospectively analysed 60 total knee arthroplasties performed by 3 different surgeons at our hospital during January 2007 to June 2010. Patients were grouped for using tourniquet and/ drain
Results: Surgical time: Use of tourniquets didn't improve it (123 - 133 minutes), Local Hospital pain score (1-5) at discharge: No significant difference. Blood transfusion (50%) was more if no tourniquet used. Only one proven case of superficial infection at 6 weeks which responded well to antibiotics. No deep infection was noted. The mean hospital stay in hospital was least (5.5 days) if tourniquet but no drain used. Post-operative deep vein thrombosis: No significant difference (5% in Group 1 and 3).
Conclusion: Pain score at discharge was comparable in all groups Patients with tourniquet but no surgical drain had least hospital stay (mean 5.5 days) and least blood transfusion rate (5%). Decision to use pneumatic tourniquet & drain still lies with the operating surgeon. We recommend a randomised control study for further evidence.

PAEDIATRIC SURGERY

0010: RISK FACTORS ASSOCIATED WITH ADVANCED APPENDICITIS AND COMPLICATIONS AFTER CHILDHOOD APPENDECTOMY

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Aim: To determine the risk factors associated with advanced appendicitis and complications after childhood appendectomy.
Methods: A retrospective observational study was done in 435 children (< 15 y) who had surgery for a preoperative diagnosis of appendicitis during a 14-year period. Data included pre-operative symptoms and signs, time from onset of symptoms to surgery, presence of advanced appendicitis (gangrene, perforation, appendiceal abscess or mass, peritonitis), and postoperative complications within 1 year after surgery. Risk factors were analysed using logistic regression.
Results: The mean time from onset of symptoms to beginning of surgery was 33 ± 22 hours. Wound infection occured in 9/435 (2%) patients. Overall postoperative complication rate was 6%. Advanced appendicitis was significantly associated with treatment delays; age of the patient; preoperative rebound tenderness, fever, tachycardia, tachypnea, leukocytosis, and Alvarado score ≥ 5. Postoperative complications in all patients were significantly associated with preoperative fever, tachypnea, and advanced appendicitis.
Conclusions: Appendicitis if untreated may progress to advanced appendicitis. Early diagnosis and urgent appendectomy are important in acute appendicitis, especially in patients with preoperative fever and tachypnea. Although other studies with similar conclusions have been done in urban settings, this study provides data supporting the care of acute appendicitis in a rural hospital setting.

0278: AUDIT OF PAEDIATRIC APPENDICECTOMIES AT A LARGE DISTRICT GENERAL HOSPITAL: 2006 - 2010

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Aims: To discover the number of negative paediatric appendicectomies at a large DGH between 2006-2010, compare intra-operative versus histological findings, analyse 'time to theatre', antibiotic prescribing, Alvarado scores, and postoperative stay.
Method: Clinical, operative, and histological records of 107 children who underwent appendicectomy were analysed. A dataset was created and analysed using Excel™ and SPSS™. Correlation and linear regression analyses were carried out. Alvarado Scores were calculated.
Results: 71 males(66%); 36 females(34%). Age range 3-16 years, (mean=11). All patients had clinical diagnoses of acute appendicitis. At operation 78%(n=83) were classified as acute appendicitis, whilst histological analysis confirmed only 61%(n=65), ie negative appendectomy rate of 39%. Conversely, 4% of appendices deemed 'noninflamed' at operation were later classified inflamed at histology. More males had positive histology (♂65% vs. ♀31%); the opposite was true for negative histology (♀56% vs. ♂44%). 18% of cases received no antibiotics. Alvarado Score correlated strongly with positive histological diagnoses, but not with complication or readmission rate.